

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WASHINGTON

PALOUSE PRAIRIE FOUNDATION, et
al.,

Plaintiffs,

v.

KEN SALAZAR, et al.,

Defendants.

No. CV-08-032-FVS

ORDER DENYING AND
GRANTING SUMMARY JUDGMENT

THIS MATTER came before the Court on February 3, 2009, based upon the parties' cross motions for summary judgment. The plaintiffs were represented by Justin Augustine; the defendants by Lawson E. Fite.

BACKGROUND

The giant Palouse earthworm (*Driloleirus americanus*) ("GPE") can grow to three feet in length. It was once common in the grasslands of the Palouse prairie. However, the Palouse prairie grasslands have all but disappeared and, during the last 30 years, few sightings of the GPE have been published. Given these circumstances, three individuals and three organizations petitioned the Secretary of the Interior to list the GPE as a threatened or endangered species under the Endangered Species Act. The petition triggered a review process:

To the maximum extent practicable, within 90 days after receiving the petition . . . to add a species . . . , the Secretary shall make a finding as to whether the petition

1 presents *substantial scientific or commercial information*
2 indicating that the petitioned action may be warranted. If
3 such a petition is found to present such information, the
4 Secretary shall promptly commence a review of the status of
the species concerned.

5 16 U.S.C. § 1533(b) (3) (A) (emphasis added). Substantial information
6 is information that "would lead a reasonable person to believe that
7 the measure proposed in the petition may be warranted." 50 C.F.R. §
8 424.14 (b) .

9 The petition was evaluated by the Fish and Wildlife Service
10 ("FWS"), whose review of the data was subject to significant
11 constraints. As the FWS acknowledges, it may not subject a petition
12 to "rigorous critical review." (Administrative Record "AR" at 1.)
13 "Rather," the FWS must accept "the petitioners' sources and
14 characterizations of the information, to the extent that they appear
15 based on accepted scientific principles (such as citing published and
16 peer-reviewed articles, or studies done in accordance with valid
17 methodologies), unless [the FWS has] specific information to the
18 contrary." *Id.* In this case, the FWS found that the petitioner's
19 request for listing the GPE was not supported by substantial
20 information. *Id.* at 4. As a result, the FWS declined to engage in
21 further review of the GPE's status. *Id.* The petitioners disagree
22 with the FWS's negative 90-day finding. They have filed an action
23 alleging the Secretary of the Interior and the Director of the Fish
24 and Wildlife Service violated the Endangered Species Act ("ESA") and
25 the Administrative Procedure Act ("APA"). The Court has original
26 jurisdiction over the subject matter of this action. 28 U.S.C. §

1 1331; 16 U.S.C. § 1540.

2 **STANDARD**

3 The FWS's negative 90-day finding is subject to judicial review
4 under the APA. *Northwest Ecosystem Alliance v. United States Fish &*
5 *Wildlife Serv.*, 475 F.3d 1136, 1140 (9th Cir.2007). However, the
6 Court may reverse the FWS's finding only if it is "arbitrary,
7 capricious, an abuse of discretion, or otherwise not in accordance
8 with law." 5 U.S.C. § 706(2)(A). A finding is arbitrary and
9 capricious "only if the agency relied on factors Congress did not
10 intend it to consider, entirely failed to consider an important aspect
11 of the problem, or offered an explanation that runs counter to the
12 evidence before the agency or is so implausible that it could not be
13 ascribed to a difference in view or the product of agency expertise."
14 *The Lands Council v. McNair*, 537 F.3d 981, 987 (9th Cir.2008) (*en*
15 *banc*) (internal punctuation and citations omitted).

16
17 In order to "flesh out" the standard of review, it is useful to
18 consider the type of evidence contained in the plaintiffs' petition.
19 There is little direct scientific evidence concerning the GPE's status
20 and its vulnerability to potential threats. Thus, the plaintiffs'
21 petition relied heavily upon circumstantial evidence. The plaintiffs
22 argue that a reasonable person could infer from the data contained in
23 their petition that the GPE is threatened. The FWS disagreed; largely
24 because, in the opinion of the FWS, the plaintiffs' data does not
25 support the inferences they draw from it. According to the
26 plaintiffs, the FWS acted arbitrarily and capriciously by discounting

1 their interpretation of the data. They submit that the FWS was
2 required to accept their interpretation unless no reasonable person
3 would accept it. The plaintiffs acknowledge that their interpretation
4 may not be the only reasonable interpretation or even the most
5 persuasive one. That does not matter at the initial stage in the
6 proceedings, say the plaintiffs. All that matters is that their
7 interpretation is a reasonable one. Consequently, as the plaintiffs
8 see it, the FWS's negative 90-day finding must be reversed unless the
9 FWS demonstrates to the Court's satisfaction that no reasonable person
10 would accept their interpretation of the data.

11 In essence, the plaintiffs are inviting the Court to review the
12 data and make an independent determination with respect to whether the
13 data would lead a reasonable person to believe the GPE should be
14 listed as threatened or endangered. The problem with the plaintiffs'
15 invitation is that it accords insufficient deference to the FWS's
16 scientific judgment. The arbitrary-and-capricious standard "is highly
17 deferential, presuming the agency action to be valid and affirming the
18 agency action if a reasonable basis exists for its decision."

19 *Northwest Ecosystem Alliance*, 475 F.3d at 1140 (internal punctuation
20 and citation omitted). Contrary to the plaintiffs, the issue before
21 the Court is not whether a reasonable person could accept their
22 interpretation of the data, but whether the FWS had a rational basis
23 for concluding that a reasonable person would not do so. In making
24 that determination, the Court must balance two considerations. On the
25 one hand, the FWS was obligated to generously evaluate the data
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1 contained in the plaintiffs' petition. On the other hand, the FWS was
2 entitled to use sound scientific judgment in deciding whether the data
3 reasonably supported the plaintiffs' inferences concerning the status
4 of the GPE.

5 **RULING**

6 A. Habitat and Range

7 The plaintiffs attempted to establish that the GPE is endemic to
8 the Palouse prairie, *i.e.*, that the GPE is confined almost exclusively
9 to the Palouse prairie.¹ The plaintiffs also attempted to establish
10 that the destruction or alteration of the Palouse prairie potentially
11 threatens the GPE. The FWS did not dispute that little of the Palouse
12 prairie grassland remains. Nevertheless, the FWS rejected the
13 proposition that the destruction or alteration of the Palouse prairie
14 is synonymous with the destruction or alteration of the GPE's habitat.
15 As the FWS noted, one of the three places in which a published
16 sighting of the GPE has occurred is the hills west of Ellensburg,
17 Washington; a location which is well outside the Palouse bioregion.
18 Consequently, the FWS questioned whether the GPE is endemic to the
19 Palouse prairie; finding, instead, that the historic range of the GPE
20 is unknown. "Because the extent [of the GPE's] historic range is
21 unknown," said the FWS, "we are unable to assess habitat loss or the
22 species' reduction in range." (AR at 3.)

24 The FWS's analysis seems to make sense. A species either is
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26 ¹(Memorandum of Points and Authorities (Ct. Rec. 22) at 8
and n.1.)

1 endemic or it isn't. The fact the GPE has been observed outside the
2 Palouse prairie appears to undermine the plaintiffs' allegation that
3 the GPE is endemic to that region. "Not necessarily," say the
4 plaintiffs. In their opinion, the FWS's interpretation of the
5 Ellensburg sighting is not supported by the scientific literature.
6 They insist that scientists generally agree that the GPE is endemic to
7 the Palouse prairie despite the fact it has been observed in the hills
8 west of Ellensburg. (AR at 172.) The plaintiffs' argument is based,
9 in large part, upon an article written by Sam James. The pertinent
10 section states:

11 The CRB [Columbia River Basin] is inhabited by at least
12 three native earthworm species, belonging to three genera.
13 All three ought to be of special' [sic] concern. One,
14 *Driloleirus americanus*, was considered for inclusion in the
15 IUCN Invertebrate Red Data Book because its habitat was
16 threatened and its range was not known to be very large. .
17 . . The currently available information suggests that it
18 may be a narrow endemic utilizing a threatened habitat
19 (shrubland sites with good soil). The collection data do
20 not give much detailed information on habitat type. The
21 three sites (near Pullman and Ellensburg [sic],
22 [Washington,] and Moscow, [Idaho,] . . . are located in what
23 is now agricultural land, grassland and shrubland

24 (AR at 172.²) As the plaintiffs correctly observe, James describes
25 the GPE as "a narrow endemic utilizing a threatened habitat[.]" The
26 plaintiffs think that James means the GPE is endemic to the Palouse
prairie despite being sighted outside that bioregion. But is that

²The preceding observation has been included in other publications. (AR 253.)

1 what he says? Let's take another look at the sentence. According to
2 James, the GPE "may be a narrow endemic utilizing a threatened habitat
3 (shrubland sites with good soil)." The key words are "threatened
4 habitat." The threatened habitat to which James refers is not the
5 Palouse prairie per se, but to "shrubland sites with good soil." In
6 this context, then, James is not saying that the GPE is endemic to the
7 Palouse prairie. Rather, he is saying the GPE is endemic to shrubland
8 sites with good soil. While that habitat exists in the Palouse
9 prairie, the Palouse prairie is not the only ecosystem in which that
10 habitat exists. There is at least one other: the hills west of
11 Ellensburg. James acknowledges as much in the paragraph quoted above.
12 Thus, like the FWS, he seems to recognize that the Ellensburg sighting
13 raises serious issues with respect to the GPE's range. Certainly, his
14 article does not undermine the FWS's interpretation of the Ellensburg
15 sighting. Given the sighting of the GPE in the hills west of
16 Ellensburg, the FWS did not act unreasonably in determining that the
17 GPE's habitat is not limited to the Palouse prairie and that its range
18 is unknown at this time.

19
20 B. Population

21 The plaintiffs attempted to establish that the GPE is rare within
22 the Palouse prairie. Among other things, they presented a study by
23 Fauci and Bezdicek. (AR 113.) During 1999, those two scientists
24 inventoried earthworms at 46 sites "in and around the Palouse region
25 of eastern Washington and northern Idaho[.]" *Id.* They removed six
26 spades of soil at each site, (AR at 115), carefully checking large-

1 diameter worm borrows for the GPE. *Id.* at 116. They did not find a
2 single GPE. *Id.* at 115. The FWS mentioned their research,
3 acknowledging that the GPE is rare. However, the FWS attached less
4 weight to the article than the plaintiffs do. As the FWS observed
5 (and the plaintiffs concede), developing information regarding the GPE
6 is difficult. (AR at 2.) It lives in burrows that may extend to a
7 depth of 15 feet, and it can escape detection by quickly retreating
8 down its burrow. (AR at 56.) "This may account," said the FWS, "for
9 the fact that, in the presence of very limited formal studies in the
10 bioregion, there have been only a few recorded sightings of the giant
11 Palouse earthworm in the past 107 years." (AR at 2.) The plaintiffs
12 challenge the FWS's assessment of the Fauci and Bezdicek research. As
13 the plaintiffs point out, Fauci and Bezdicek found another deep-
14 borrowing species of earthworm, *Lumbricus terrestris*, at many of the
15 sites they surveyed. If Fauci and Bezdicek failed to uncover the
16 deep-burrowing GPE because their research methods were flawed, then
17 why, ask the plaintiffs, were they able to find other deep-burrowing
18 earthworms? The answer, say the defendants, is that native earthworms
19 such as the GPE rarely travel over the surface of the ground, whereas
20 exotic earthworms such as the *L. terrestris* commonly do. (Defendants'
21 Reply at 6.) Thus, according to the defendants, it is unsurprising
22 Fauci and Bezdicek found *L. terrestris*. The defendants' answer may or
23 may not be correct. The Court is not in a position to say. But what
24 the Court is in a position to say is that the FWS considered the Fauci
25 and Bezdicek research and had a rational basis for declining to draw
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1 the inferences from it that the plaintiffs do.

2 C. Injurious Agricultural Practices and Exotic Species

3 The plaintiffs attempted to establish that certain agricultural
4 practices threaten the GPE's habitat. They presented information
5 indicating that ammonia-based fertilizers and some forms of tillage
6 are harmful to earthworms. The plaintiffs argue that the Fauci and
7 Bezdicek research illustrates the deleterious effects of the practices
8 in question. Fauci and Bezdicek observed that *L. terrestris*, the
9 deep-burrowing earthworm mentioned above, was much more common in non-
10 agricultural sites than agricultural sites. According to the
11 plaintiffs, the fact *L. terrestris* is much more common in non-
12 agricultural sites suggests that injurious agricultural practices
13 disproportionately harm deep-burrowing earthworms like the GPE. *L.*
14 *terrestris* was not the only exotic species cited by the plaintiffs in
15 support of their allegation that certain agricultural practices
16 threaten the GPE's habitat. Another species is the *Aporrectodea*. The
17 alleged significance of its presence in the Palouse bioregion is this:
18 There is evidence *Aporrectodea* displaces native earthworm species in
19 prairies whose native vegetation has been destroyed. In the
20 plaintiffs' opinion, the widespread presence of *Aporrectodea* in the
21 Palouse prairie is indicative of both the damage that has been
22 inflicted upon the GPE's habitat and the displacement of the GPE by
23 exotic species of earthworms.
24

25 The FWS did not agree. To begin with, said the FWS, "[t]he
26 petition did not provide any information that indicated the types and

1 amounts of pesticides and herbicides that have been applied to farmed
2 lands within the Palouse bioregion. [The petition] also provided
3 little information indicating the amounts of ammonia-based fertilizer
4 that was applied to farmlands in the bioregion." (AR at 2.) That was
5 not all. According to the FWS, there was another problem:

6 [V]ery limited information exists on the specific habitat
7 limitations of the giant Palouse earthworm or on impacts to
8 it from agricultural activities. Most of the information
9 presented in the petition is related to other native and
10 exotic earthworm species, and therefore it is difficult to
11 draw specific conclusions related to whether any of the
potential threats raised in the petition affect the giant
Palouse earthworm.

12 *Id.*

13 *1. Significance of exotic species*

14 The plaintiffs claim the FWS erred by refusing to extrapolate
15 from data concerning other species of earthworms. They point out
16 that, at this stage in the proceedings, they are not required to
17 demonstrate that the presence of exotic species actually threatens the
18 GPE's habitat. To the contrary, they are only required to demonstrate
19 that a reasonable person may believe a threat exists. By refusing to
20 extrapolate, say the plaintiffs, the FWS effectively required them to
21 provide more information than the Endangered Species Act requires at
22 this stage in the proceedings. As the plaintiffs see it, the FWS
23 demanded evidence approaching scientific certainty.

24 Determining which inferences reasonably may be drawn from data
25 involves the exercise of scientific judgment. Here, the FWS had to
26 decide whether the characteristics of the comparator species are

1 sufficiently similar to the those of the GPE such that data concerning
2 the comparator species applies with equal force to the GPE. As the
3 plaintiffs seem to acknowledge, the comparator species are similar to
4 the GPE in some respects; dissimilar in others. First, consider the
5 *L. terrestris*. Like the GPE, it is deep-burrowing. However, unlike
6 the GPE, it commonly travels over the surface of the ground. Next,
7 consider the *Aporrectodea*. Like the GPE, it is present in the Palouse
8 prairie. However, unlike the GPE, it burrows through the upper soil
9 horizons. The FWS evaluated the relevant species' similarities and
10 dissimilarities and decided that extrapolation is unwarranted given
11 the record as it now stands. That is the sort of judgment which the
12 FWS must make under the Act. It is inappropriate for a district court
13 to second-guess such a judgment when it is based, as this one is, upon
14 a rational interpretation of the evidence.
15

16 2. Tillage

17 Older forms of tillage were harmful to earthworms. Newer forms
18 of conservation tillage are much less so. "Chisel-plowing, shallow-
19 tining, harrowing, and disking seem to have relatively small effects
20 on either deep-burrowing or shallow-working species. The increases in
21 earthworm populations that occur under long-term conservation tillage
22 can be large." (AR at 100.) In view of the different impacts of
23 older and newer forms of tillage, it was not enough for the plaintiffs
24 to allege that "tillage" threatens the GPE's habitat. The FWS
25 properly expected the plaintiffs to provide documentation concerning
26 the types of tillage commonly employed today by farmers in the Palouse

1 bioregion. Given the absence of documentation, the FWS was under no
2 obligation to assume that the older, more-harmful forms of tillage are
3 widespread.

4 3. *Fertilizers*

5 Regular annual use of ammonia-based fertilizers tends to decrease
6 earthworm populations. (AR at 101.) However, earthworm populations
7 tend to recover when the application of ammonia ceases. *Id.* at 100.
8 Given this evidence, it was not enough for the plaintiffs to allege
9 that fertilizer applications have increased in the Palouse bioregion
10 during the second half of the twentieth century. The FWS properly
11 expected the plaintiffs to document the extent to which, and the
12 quantities in which, ammonia-based fertilizers are being applied in
13 the Palouse bioregion. Since the plaintiffs did not provide this
14 data, the FWS reasonably refused to infer that fertilizer applications
15 in the Palouse bioregion presently threaten the GPE's habitat.
16

17 D. Email

18 One of the plaintiffs' principal allegations is that the FWS
19 employed a standard more demanding than that specified by the ESA. As
20 support for their allegation, the plaintiffs quote a sentence in an
21 email that an FWS employee sent on September 17, 2007. He wrote, in
22 part, that the FWS's negative finding "is the one that stands out as
23 potentially inconsistent with the [solicitor's] interpretation of
24 reasonable person/circumstances threshold." (AR at 895.) In the
25 plaintiffs' opinion, this statement is like the proverbial smoking
26 gun. It is unmistakable evidence, say the plaintiffs, that the FWS

1 knew its negative finding was in error. The plaintiffs are mistaken.
2 They place far too much weight on this single, cautious statement.
3 There is no indication that the author of the email actually disagreed
4 with the FWS's negative finding. Fairly read, his statement suggests
5 only that he thought the finding was "potentially inconsistent" with
6 the governing standard as he understood it. His concerns were
7 unfounded. As explained above, the FWS did not act unreasonably in
8 finding that the petition did not present substantial information
9 indicating that the GPE is threatened or endangered.

10 **CONCLUSION**

11 There is little direct evidence about the GPE. Thus, the
12 plaintiffs had to rely almost entirely upon circumstantial evidence.
13 They submit that, at this stage in the proceedings, the FWS must draw
14 every inference from the evidence that could prove to be warranted.
15 The plaintiffs are incorrect. Deciding whether an inference is
16 warranted involves the exercise of scientific judgment. The FWS is
17 required to exercise its judgment in a reasonable manner; that is to
18 say, the FWS must draw every inference from circumstantial evidence
19 that is scientifically reasonable. The Court's role is to determine
20 whether the FWS had a reasonable basis for its interpretation of the
21 evidence. In this case, the FWS acted reasonably. At each point
22 along the analytical path (whether considering the extent of the GPE's
23 habitat, its population, or potential threats to its existence), the
24 FWS had a rational basis for declining to draw the inferences sought
25 by the plaintiffs. Consequently, the Court will grant the FWS's
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1 motion for summary judgment and uphold its determination.

2 **IT IS HEREBY ORDERED:**

3 1. Ken Salazar is substituted for Dirk Kempthorne. Rowan Gould
4 is substituted for Dale Hall. Fed.R.Civ.P. 25(d).

5 2. The plaintiffs' motion for summary judgment (**Ct. Rec. 20**) is
6 **denied.**

7 3. The defendants' motion for summary judgment (**Ct. Rec. 28**) is
8 **granted.**

9 4. The plaintiffs' complaint is dismissed with prejudice.

10 **IT IS SO ORDERED.** The District Court Executive is hereby
11 directed to file this order, enter judgment accordingly, furnish
12 copies to counsel, and close the case.

13 **DATED** this 12th day of February, 2009.

14
15 s/ Fred Van Sickle
16 Fred Van Sickle
17 Senior United States District Judge
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